



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/521,329

04/25/2005

Henri Vial

BJS-1721-83

1692

23117

7590

03/04/2009

NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

EXAMINER

POWERS, FIONA

ART UNIT

PAPER NUMBER

1626

MAIL DATE

DELIVERY MODE

03/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/521,329	Applicant(s) VIAL ET AL.	
	Examiner Fiona T. Powers	Art Unit 1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 29-41 and 53-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 29-41 and 53-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Receipt is acknowledged of the amendment filed December 23, 2008, which has been entered in the file.

Claims 29 to 34 and 53 to 55 are objected to because of the following informalities: the claims contain non-elected subject matter. Note that compounds of the formulae I, IV and IV which are other than where R_1 and R_2 , and/or R'_1 and R'_2 or R_2 and R_3 , and/or R'_2 and R'_3 or R_1 , R_2 and R_3 and/or R'_1 , R'_2 and R'_3 together form a heterocycle are non-elected. Thus, for example, non-heterocyclic compounds are non-elected. Appropriate correction is required.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 29 to 41 and 53 to 55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the

Art Unit: 1626

explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 29 and 55 recite the broad recitation "anti-parasitic" and "infectious diseases", respectively, and the claims also recite "malaria" which is the narrower statement of the range/limitation.

In claim 29, an "or" should be inserted between the last two substituents listed on page 4, lines 2, 4 and 6.

In claim 29, the "and" that appears on page 4, line 8 should be "or" since what appears after is an alternate definition of R_1 and R_2 etc.

In claim 29, on page 4, next to last line, it is not clear what is bonded to the N in the substituent

CH₂N[H, (H, alkyl), (dialkyl), aryl]. For example, there is a valence problem when the N is substituted with the dialkyl group and the H, alkyl or aryl group.

In claim 29, there is no antecedent basis previously in the claim for "both oxadiazoles" which appears in the first proviso. Also, it is not clear what variable(s) this "oxadiazole" refers to since more than one variable can be a heterocycle.

In claims 29 and 41, in the definition of "R₂ and R₃" and/or "R'₂ and R'₃" it does not state what the substituent is intended by the phrase "same substituent".

Claims 33 and 34 state that R₁ and/or R'₁ or R₃ and/or R'₃ are "as defined above" but the variables are not defined above in these claims.

Claim 33 is dependent on claims which depend from claim 29. However, it is not a further limitation of claim 29 because "R₂ and/or R'₃", "R₂ and/or R'₂" are defined as R₁, R₂ and R₃ but the definition of "R₂ and/or R'₃", "R₂ and/or R'₂" in claim 29 does not include these variables.

In claim 33, the definition of R₃ and R₂ includes R₂ and R₃. See the last line of claim 33.

Art Unit: 1626

Claims 36 and 37 do not end in a period.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 29 to 41 and 53 to 55 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The provisos that have been added to the end of claim 29 are new matter since it is new matter to proviso out specific compounds that are not disclosed in the specification. See *Ex parte Grasselli*, 231 USPQ 393.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

Art Unit: 1626

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 29 to 36 are rejected under 35 U.S.C. 102(b) as being anticipated by Rai et al. (US 3222285), of record.

The reference discloses the claimed compounds of the formulae I, IV, V and VI where n is 0 and Z is $(CH_2)_m$ where m is 8 or 9. Note Example 1 and column 3, line 33 of Rai et al.

Claims 29 to 36, 39 and 53 to 55 are rejected under 35 U.S.C. 102(b) as being anticipated by Lamb et al. (Journal of the Chemical Society, 1253-1257, 1939), cited.

The reference discloses the claimed compound and pharmaceutical composition of the formulae I, IV, V and VI where n is 0 and Z is $(CH_2)_m$ where m is 10. Note the third paragraph on page 1255.

Claims 29 to 36 and 39 are rejected under 35 U.S.C. 102(b) as being anticipated by Oxley et al. (Journal of the Chemical Society, 497-506, 1947) or CAS Registry Number 334785-11-4, entered STN on May 7, 2001, cited.

The references disclose the claimed compound of the formulae I, IV, V and VI where n is 0, and Z is $(CH_2)_m$ where m is 8 or 11. Note Compound Nos. 22 and 23 of the table on page 500 of Oxley et al. and Registry Number 334785-11-4.

Art Unit: 1626

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 29 to 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shreve et al. (US 2744116) or Rai et al. (US 3222285), of record.

Determination of the scope and content of the prior art (MPEP §2141.01)

The references disclose structurally similar compounds that are useful as intermediates for azo compounds or as corrosion inhibitors. Note column 2, lines 29 to 40 of Shreve et al. and column 1, lines 9 to 19 of Rai et al. The compounds of the references are structurally similar to the claimed compounds of the formulae I, IV, V and VI where n is 0 and Z is $(CH_2)_m$ where m is 9 to 12 (Shreve) or m is 10 to 20 (Rai). Note Example 3, No. 7 in column 4 of Shreve et al. and Example 1 and column 3, line 33 of Rai et al.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The compounds mentioned above of Shreve and Rai differ from the claimed compounds in that the group that corresponds to m is

Art Unit: 1626

8 instead of 9-12 (Shreve) or is 8 or 9 instead of 10 to 20

(Rai).

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

However, the references themselves teach the interchangeability of 8 with 9-12 (Shreve) or 8 or 9 with 10-20 (Rai). Note that in claim 1 of Shreve et al. the alkylene chain can contain up to 12 carbon atoms. Also note the definition of A in column 1, line 22 of Rai et al. One of ordinary skill in the art would have been motivated to make the claimed compounds with the expectation that additional compounds useful in the preparation of azo compounds or as corrosion inhibitors would be obtained.

Claims 29 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mueller et al. (US 5242948), of record.

Determination of the scope and content of the prior art (MPEP §2141.01)

The reference discloses structurally similar compounds that are useful as fungicides. Note column 1, lines 30 to 66. The compounds of the reference are structurally similar to the claimed compounds of the formulae I and IV where n is 1 and Z is $(CH_2)_m$ where m is 11 to 19. Note Examples 5 and 6 and Compound Nos. 18b to 39b.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The compounds of the reference differ from those claimed in that the group that corresponds to m is 10 or 12 instead of 11 to 19.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

However, the reference itself teaches the interchangeability of 10 or 12 with 11 to 19 for m. Note formula I in column 1 and the definition of X (CH₂ or a single bond) in column 2, line 62 and n (5 to 8) in column 1, line 63. One of ordinary skill in the art would have been motivated to make the claimed compounds with the expectation that additional compounds useful as fungicides would be obtained.

Claims 29 to 36, 39 and 53 to 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lamb et al. (Journal of the Chemical Society, 1253-1257, 1939).

Determination of the scope and content of the prior art (MPEP §2141.01)

The reference discloses compounds which are structurally similar to the claimed compounds that are useful as anti-parasitic (antitrypanocidal) agents. The compound of the reference is structurally similar to the claimed compound and pharmaceutical composition of the formulae I, IV, V and VI where n is 0 and Z is (CH₂)_m where m is 10. Note the third paragraph on page 1255.

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

The compound of the reference differs from that claimed in that it is a homolog. For example, the group that corresponds to m is 10 instead of 11.

Finding of prima facie obviousness---rational and motivation (MPEP §2142-2413)

However, it has been held that homologs are obvious over one another. Note In re Wood, 199 USPQ 137, for example. One of ordinary skill in the art would have been motivated to make the claimed compounds with the expectation that additional compounds with anti trypanocidal activity would be obtained.

The objections and rejections under 35 USC 112, second paragraph and 102(b) presented in the last office action which are not repeated herein have been overcome by applicants amendment.

Applicant's arguments filed December 23, 2008 have been fully considered but they are not persuasive.

Applicants state that the rejection of claim 55 has been overcome by amendment. However, claim 55 has only been amended to overcome the objection raised in the previous office action. The 112, second paragraph rejection still applies.

In regards to the 102(b) rejection of claims 29-36 over Rai et al., applicants state that the compounds have been excluded from the claims. However, the bisbenzimidazole compounds of Rai et al. have not been excluded from the claims.

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fiona T. Powers whose telephone number is 571-272-0702. The examiner can normally be reached on Monday - Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/521,329

Page 12

Art Unit: 1626

/Fiona T. Powers/
Primary Examiner, Art Unit
1626

ftp
February 27, 2009